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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|------------------------------|------------------------|
| 10/538,816 | 01/17/2006 | Garry Brereton | 60130-2474 | 5816 |
| 26/096 7590 05/03/2010 CARLSON, GASKEY & OLDS, P.C. 400 WEST MAPLE ROAD SUITE 350 BIRMINGHAM, MI 48009 | | | EXAMINER WILHELM, TIMOTHY | |
| | | | ART UNIT 3616 | PAPER NUMBER |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/538,816

Applicant(s)

BRERETON ET AL.

Examiner

Timothy D. Wilhelm

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3,8-13, 40 and 42-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3,8-13, 40, and 42-53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB06)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This office action was made in response to an amendment filed 1/20/2010.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 8,12,13, and 42-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al (6,491,314) in view of Pierce (5,203,585). Smith discloses a suspension trailing arm 518 for a vehicle comprising an integral axle locating formation 542 that fully encircles an axle 524 of a vehicle, a chassis mounting formation 552, and an integral damper mounting formation 528 for a shock absorber 522, wherein the trailing arm 518 is formed of a first section and a second section, said first section including a first portion 544 of the axle locating formation 542 and the chassis mounting formation 552 and said second section includes a second portion 548 of the axle locating formation 542 and a convex portion, which constitutes part of the outer plate of the axle locating formation, for supporting a bracket 519 for mounting a spring 520, and wherein the first and second portions 544,548 of the axle locating formation 542 are welded to each other at weld spots 590 directly above and below the axle 524. Smith discloses the present invention except for the trailing arm being cast or forged and the portion of the trailing arm between the axle locating formation and

chassis connection portion being I-Shaped, though Smith does disclose casting or forging certain portions of the trailing arms of the many embodiments of Smith. Pierce teaches a trailing arm for a vehicle suspension system comprising an axle locating formation 64, a chassis mounting formation 38, and a substantial C-Shaped portion of the trailing arm 46 that extends between the axle locating formation and the chassis mounting formation, wherein said trailing arm may be formed as a forged steel beam or alternatively may be cast from a suitable cast steel (column 3, lines 20-25). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the trailing arm of Smith with the teaching of Pierce such that the trailing arm is either cast or forged with the portion extending between the chassis mounting formation and the axle locating formation being substantially C-Shaped to better ensure a high strength of the trailing arm (column 1, lines 45-53). With regard to the arm portion being an integral casting or forging with the axle locating formation, it would have been obvious to one having ordinary skill in the art at the time the invention was made to forge or cast, as taught by Pierce, the arm portion and axle locating formation of Smith as one integral piece, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. It has further been held that the term "integral" is sufficiently broad to embrace constructions united by such means as fastening and welding.

3. Claims 9,14,15,49, and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith and Pierce, as applied to claims 8,12,13, and 42-48 above, and further in view of Chalin et al (7,007,960). Smith and Pierce disclose the present

invention except for a window aperture formed in the axle locating formation. Chalin discloses a C-Shaped trailing arm comprising an axle locating formation 32 having window apertures 40 in the front and back of said formation through which the axle locating formation 32 is welded to the axle 12 of the vehicle. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the axle locating formation of Smith and Pierce with the teaching of Chalin's window apertures to connect the arm to the axle without welds being positioned in high stress areas (column 1, lines 32-39).

4. Claims 3,10,11, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith and Pierce as applied to claims 8,12,13, and 42-48 above. Smith and Pierce disclose the claimed invention except for a thickness of the suspension trailing arm being a certain specified thickness or the bending strength of the trailing arm being greater in certain areas. It would have been obvious to one having ordinary skill in the art at the time the invention was made to form a thickness of the suspension trailing arm to be a certain thickness or make the bending strength of the trailing arm greater in certain areas, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art.

5. Claims 51-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith, Pierce, and Chalin as applied to claims 8,9,12-15 and 42-50 above, and further in view of Pierce et al (2001/0020775), hereafter referred to as Pierce '775. Smith and Pierce and Chalin fail to disclose the axle locating formation and window as extending

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further inward than the chassis mounting formation. Figs. 5 and 18 of Pierce '775 teach a trailing arm for a vehicle as having an axle locating formation 36 and a window aperture 61 that extends further inward than a chassis mounting formation 23.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the trailing arm of Smith, Pierce, and Chalin with the teaching of Pierce '775's wider axle locating formation and window aperture to allow more area for axle support and room for more secure welds to the axle. With regard to claim 52, Fig. 5 shows a smooth curved transition between the trailing arm and the axle mounting formation 36.

Response to Arguments

6. With regard to the arm portion 532 being an integral casting or forging with the axle locating formation, as stated above, it would have been obvious to one having ordinary skill in the art at the time the invention was made to forge or cast, as taught by Pierce, the arm portion and axle locating formation of Smith as one integral piece, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. Regarding the propriety of combining the Smith and Pierce references, Pierce merely shows that a different method of forming than that of Smith is well known in the art for forming a vehicle trailing arm. As the structural limitations of claim 43 have been met by Smith, simply modifying the method of forming the trailing arm does not require any amount of hindsight or destruction of the reference as set out by Smith. The secondary references teach all of the other limitations, including window welds in both Chalin and Pierce '775.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy D. Wilhelm whose telephone number is 571-272-6980. The examiner can normally be reached on 9:00 AM to 5:30 PM Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 571-272-7742. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Timothy D Wilhelm

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Examiner
Art Unit 3616

/Timothy D Wilhelm/
April 23, 2010

/Paul N. Dickson/
Supervisory Patent Examiner, Art Unit 3616